

## Populus tremuloides / Prunus virginiana Woodland

COMMON NAME Trembling Aspen / Choke Cherry Woodland  
SYNONYM Aspen / Chokecherry Woodland  
PHYSIOGNOMIC CLASS Woodland (II)  
PHYSIOGNOMIC SUBCLASS Deciduous Woodland (II.B)  
PHYSIOGNOMIC GROUP Cold-deciduous woodland (II.B.2)  
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (II.B.2.N)  
FORMATION Cold-deciduous woodland (II.B.2.N.a)  
ALLIANCE POPULUS TREMULOIDES WOODLAND ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 3

USFWS WETLAND SYSTEM

RANGE

### **Theodore Roosevelt National Park**

This aspen woodland is relatively rare in the project area. It is found on only one site in the south unit of Theodore Roosevelt NP.

### **Globally**

This community is found in western North Dakota, southern Manitoba, and possibly in southern Saskatchewan.

ENVIRONMENTAL DESCRIPTION

### **Theodore Roosevelt National Park**

*Populus tremuloides* is the major overstory species on the top of somewhat steep (26-49%) north facing slopes. The occurrence of this alliance is usually associated with sites that receive additional moisture because of enhanced snow catchment. Further, delayed snow melt in the spring tends to produce cold, wet soils that favor development of these stands. *Fraxinus pennsylvanica* is a common lower slope associate.

### **Globally**

In southwestern North Dakota, this community is largely limited to gentle (0-20 percent) slopes on the fringes of other woodlands. The soils are deep (>40 cm) loam, with a pH of 7.2 to 8.0 (Girard et al. 1989). At the eastern edge of its range, this community can be found on dry-mesic to wet-mesic sites and on flat to rolling topography.

MOST ABUNDANT SPECIES

### **Theodore Roosevelt National Park**

<u>Stratum</u>	<u>Species</u>
Tree Canopy	<i>Populus tremuloides</i> , <i>Fraxinus pennsylvanica</i>
Short Shrub	<i>Prunus virginiana</i> , <i>Symphoricarpos occidentalis</i>
Herbaceous	<i>Poa pratensis</i> , <i>Galium boreale</i>

### **Globally**

CHARACTERISTIC SPECIES

### **Theodore Roosevelt National Park**

*Populus tremuloides*, *Fraxinus pennsylvanica*, *Prunus virginiana*

### **Globally**

VEGETATION DESCRIPTION

### **Theodore Roosevelt National Park**

This woodland occurs infrequently in the study area at the top of a few north facing slopes. It is usually contiguous with the *Fraxinus pennsylvanica* – (*Ulmus americana*) Woodland Alliance or the *Juniperus scopulorum* Woodland Alliance, both of which can occur along the lower portions of the same slope. Mean foliar cover for the canopy is about 43%. Most of the *Populus tremuloides* appear to be older individuals with few, if any, new suckers in the understory. The shrub layers are usually fairly diverse with the usual woodland dominants found in the project area (*Prunus virginiana*, *Symphoricarpos occidentalis*, *Rhus trilobata*, and *Amelanchier alnifolia*). Shrub cover is fairly high (101% mean foliar cover). The herbaceous layer is equally species rich with no clear dominants.

**USGS-NPS Vegetation Mapping Program**  
**Theodore Roosevelt National Park**

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**Globally**

Across its range, the dominant canopy species in this community is *Populus tremuloides*, often associated with *Fraxinus pennsylvanica*. *Betula papyrifera* is sometimes present or even codominant (Girard et al. 1989). In the eastern portion of its range, *Quercus macrocarpa* and *Populus grandidentata* are also typical canopy associates. *Populus tremuloides* spreads by root suckering and this can result in high stem density, especially in younger stands. Girard et al. (1989) found 722 stems/ha in southwestern North Dakota. There is a significant shrub layer that is dominated by *Prunus virginiana*. Other common shrub species include *Ribes aureum* var. *villosum*, *Amelanchier alnifolia*, *Symphoricarpos occidentalis*, *Corylus spp.*, and *Rosa spp.* The herbaceous layer is not as well-developed as the shrub layer but is still significant. *Maianthemum stellatum*, *Galium boreale*, and *Aralia nudicaulis* are typically found in the herbaceous layer.

**OTHER NOTEWORTHY SPECIES**

CONSERVATION RANK G4G5.

DATABASE CODE CEGL002130

**SIMILAR ASSOCIATIONS**

**COMMENTS**

Stands containing *Betula occidentalis* (22% cover) in the understory at Theodore Roosevelt National Park (Hansen et al. 1984) appear to be a variant of this type; those stands also contain *Prunus virginiana* (31% cover). A wet-mesic stand containing *Be* Fire is necessary to maintain this community, especially in the more mesic eastern portion of its range (MN NHP 1993). The occurrence of these stands on the top of north-facing slopes may result in increased snow catch as the winds blow across the tops of other buttes, while the downslope portions are more sheltered. In the spring, the soils on these tops sometimes remain frozen after the frost has gone out downslope. The cold, wet conditions, which are unfavorable for seed germination, may favor *Populus tremuloides*, which can reproduce by sprouting. Similarly, in the wetter slope positions, the soil may be so saturated as to be unstable for some species. *Populus tremuloides* may act to stabilize these positions, and thereby be succeeded by *Fraxinus pennsylvanica* stands.

**REFERENCES**